

MEMORANDUM

Date: March 10, 2006
To: Joint Policy Committee
CC: Paul Fassinger, Research Director
From: Randy Deshazo, Senior Regional Planner
Subject: Potential conflicts between industrial and residential uses under Smart Growth

Summary

While Smart Growth principles promote a more compact land-use pattern in the Bay Area, competition for the limited amount of available land brings freight related land-uses and increasing Bayside residential development into potential conflict. Aside from direct competition for land, normal industrial activities generate off-site impacts on nearby residential uses through freight movement and site related nuisances.

Consequently, new residential developments may experience difficulties in attracting permanent residents. Industrial enterprises may also find that ongoing conflict with new residents may limit their future operations. Given these compatibility concerns, ABAG may need to reconsider the distribution of jobs and residents in certain areas in the next forecast. Also, these concerns may also influence the identification of Priority Development Areas as part of the Focusing Our Vision process.

Included in this staff report are a few case studies to illustrate how staff will approach compatibility concerns with respect to development potential. Even though this staff report concerns only three sites, the Jack London Square area, the Port of Oakland and the NUMMI plant area, several other sites can be included in further analysis. Results from this study will be communicated to affected local governments in the context of ABAG's forecast and in the identification of Priority Development Areas.

Compatibility at the Crossroads of Goods Movement and Residential Development

Most industrial areas are located along the I-80/880 corridor in the Inner East Bay, around the southern parts of the Bay in Santa Clara, in northern San Mateo and in San Francisco. Newer industrial and warehouse space appears in more outlying parts of the region such as the I-80 corridor in Solano, near Highway 101 in Sonoma and in the Livermore/Tri-Valley area along I-580. Much of the new residential development in the Bay Area is occurring inside and along the I-80/880 corridor.

Because physical site characteristics such as relatively flat and large parcels of land with proximity to major arterials and employment centers are appealing as locations for both residential and industrial uses, these uses compete for the limited available land in the Bay area. When residential and industrial uses are located near to each other, there may be compatibility issues that emerge from sharing the same road network, along with noises, odors, hazardous materials and high-intensity lighting. Moreover, since many of the available parcels are redevelopment properties, many sites considered for reuse as residential development are located in the midst of existing industrial and warehouse uses. The potential of infill redevelopment projects may be limited if they are developed adjacent to incompatible uses.

Given these factors, industrial operations may adversely impact the current trend toward higher residential densities within the I-80/880 corridor. Even with the implementation of site design standards affecting truck routes, parking and other site development techniques to mitigate industrial nuisances, permanent residents may be reluctant to locate along the industrial-residential seam line.

Ultimately, at every site where there is competition for land between industrial and residential development, the prevailing land-use trend in the vicinity may be decisive. For example, even with property owner preferences for one use over another, market forces tend to turnover industrial and warehouse uses to higher value uses with increasing demand since industrial uses yield low rents and property values per square foot. On the other hand, the lack of amenities and services, especially in an area perceived to be normatively industrial, makes residential development riskier than in suburban areas.

Case Studies

The following three case studies are examples of the diversity of Bay Area land-use mixes and the role that contending demand for land between residential and industrial/goods movement uses plays in anticipating future development.

Jack London Square (Census Tracts 4032, 4033)

These tracts comprise 314 Acres

	2005	2015	2030
Employment	11,652	12,697	13,673
Job-land Acres	227	233	234
Households	1,223	1,886	2,694
Residential Acres	42	57	64
Residential Density	29 du/acre	33 du/acre	42 du/acre
Total Developed Acres	269	290	298
Percent Developed	86%	92%	95%

Given its highly desirable location along Oakland's waterfront, the Jack London Square area is anticipated to see continued growth in employment and rapid growth in residential development over the next quarter century. Sustaining this growth requires continuing densification of both commercial/industrial land and residential land. Achieving the required density, however, may require consolidation of the currently highly fragmented pattern of land uses within the Jack

London Square area. With small lot sizes, small city block sizes and the proximity of incompatible land-uses, redevelopment of land with greater densities will be constrained by an inability to achieve the necessary building masses to support those higher densities.

Since office workers typically require far less space per employee than industrial workers, increased employment density will be supported by an anticipated greater share of office jobs by 2030. Even so, industrial workers is anticipated to decline to 41% of the workforce in 2030 (as compared to 57% in 2000).

While Projections estimates are reasonable, the City of Oakland's recent efforts to smooth over potential land-use conflicts must be observed over time to see to what extent redevelopment of the area around Jack London will allow for both residential and industrial uses.

Port of Oakland (Census Tracts 4017, 4018, 4019, 4020)

These tracts comprise 2,679 Acres

	2005	2015	2030
Employment	10,485	12,233	16,191
Job-land Acres	2,033	2,062	2,099
Households	1,497	2,366	3,508
Residential Acres	104	142	180
Residential Density	14 du/acre	17 du/acre	19 du/acre
Total Developed Acres	2,137	2,204	2,279
Percent Developed	79%	82%	85%

While the Port of Oakland comprises a very large area in East Oakland, much of the current debate about land in this area surrounds potential future uses for the Oakland army base. The Oakland Army Base ("OARB") Redevelopment Area comprises the 425 acre former Oakland Army Base, plus adjacent areas, totaling approximately 1,800 acres. Along with the former Army Base property, the OARB Redevelopment Project Area includes two non-Base areas: the Port of Oakland maritime area as well as the former Naval Fleet and Industrial Supply Center located adjacent to the Port's Outer and Middle Harbor terminal facilities; and an area along the Oakland Army Base's eastern boundary roughly between the realigned I-880 freeway and Wood Street.

Even though OARB is proposed to contain industrial and office uses, the former Wood Street AMTRAK station sub-area is proposed to eventually contain 1,557 housing units. Between 2005 and 2030, ABAG anticipates this study area to add another 2,011 households. With the complete build-out and occupancy of these units, the study area will need to add approximately 454 units to meet Projections 2005 estimates of area population. While there are some tracts of vacant residential in the vicinity, those tracts are squeezed between major limited access transportation facilities and adjoining industrial uses. It is possible that with increasing demand for residential uses, these tracts may be successfully developed. On the other hand, without significant retail support and substantial buffering from nuisances emanating from ongoing adjacent heavy industrial uses, demand for those residential units may be low.

Oakland is considering adopting a mixed industrial-residential zoning district (CIX-2) in west Oakland, to ensure that there is adequate space for both residential and industrial uses. CIX-2 will allow light industrial uses on ground floors and, conditionally, residential uses on upper floors. As with the Jack London area, ongoing monitoring of the successfulness of Oakland's efforts will be instrumental in forecasting future growth.

NUMMI Plant, Fremont (Census Tracts 4415.03, 4433.02, 4431.02)

These tracts comprise 20,059 Acres

	2005	2015	2030
Employment	58,558	64,852	71,441
Job-land Acres	4,241	4,534	4,570
Households	7,498	7,968	8,940
Residential Acres	1,407	1,464	1,550
Residential Density	5 du/acre	5 du/acre	6 du/acre
Total Developed Acres	5,648	5,998	6,120
Percent Developed	28%	30%	31%

The area of Fremont contained within the above cited Census Tracts is characterized by clearly delineated separation of land uses, with residential uses ranging from four to ten units/acre east of I-680, a six-lane freeway, and mostly industrial/warehouse uses west of I-680. West of I-680 and framed by Warm Springs Court and Fremont Boulevard on the west and east respectively, and south of South Glimmer Road is the NUMMI (New United Motors Manufacturing) plant. The plant houses some 5,700 employees engaged in shifts around the clock.

Even though I-680 buffers single-family residential uses from the more intense industrial uses to the east of I-680, Fremont is preparing a Specific Plan for the proposed Warm Springs BART station to be located west of I-680, near the NUMMI plant.

NUMMI officials have expressed concerns about placing new residential development near the NUMMI plant. The City of Fremont's Warm Springs BART Area Specific Plan, however, calls for buffering residential uses from surrounding industrial uses with retail and office uses in a Transit Oriented Development (TOD). A TOD, designed to mitigate noise and other impacts from nearby industrial uses, with residential uses transitioning to office/retail uses to the west may succeed in a largely industrial area. However, the long-term success of this 320 acre site, with a potential for 1,500 units, depends on ensuring that residential uses are adequately buffered from active industrial uses.

ABAG's Projections 2005 forecasts modest growth in residential development for these Census Tracts with 1,442 new households for the entire forecast period. This figure is consistent with the build-out potential of a TOD at the Warm Springs site.

Conclusion

While both Oakland and Fremont appear to be grappling with the potential conflict between goods movement and residential uses, only ongoing monitoring will be able to provide insight into the overall success of mixing these often incompatible land uses. Staff will work with local jurisdictions in assessing the future development potential of areas with particular emphasis on how these potential conflicts might impact Priority Development Areas under the Focusing Our Vision project.

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